

*Cretinism*  
*and*  
*Thyroid Extract*  
*by*  
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# Cretinism and Thyroid Extract

Francis James aged nineteen residing at Penyrwain near Aberdare, Wales came under my notice on the 6<sup>th</sup> February 1895, having signs of Myxoedema and Cretinism with stunted growth. The patient follows no employment, and never did work at anything. His mother says that at seven years of age, she noticed that he was "not moving" but from birth his head has always been larger than natural. About the same size of clothes suits him now at nineteen as when he was seven years old. He has never had any trouble at all - not even the ordinary ailments of childhood. The patient has always been stout with a large head and heavy body but with no proportionate strength or

stoutness of the lower limbs. The head is wide at the sides, with the cheeks heavy below. The nose is flat or sunk at the bridge, not turned up, but wide at the alae, which are tumid. The interval between the eyes is larger than normal, this condition being present in one sister and one brother too. The mouth is large. On the left side of the neck below the jaw is seen the mark of a previous sup-  
 puration, which has broken and healed up. The mother declares that a gathering takes place in this situation about the same time every year. The face is pale and the lips purple as if from cold. There is a soft puffy oedematous swelling in the connective tissue round both eyes, most noticeable inferiorly and at the external angles of the eyes. On inquiring I could not find any history of Goitre, Basedow's disease, Myxoedema, or Cretinism in the

relations outside of the family. There is one sister who is nearly in the same condition as the patient, being seventeen years of age, dwarfed, and having always been dull in the intellect. The patient keeps his head poised backwards on the cervical vertebrae, which can be seen by examining the photo. This is a position constantly assumed, but more marked in his younger sister, age six, who is too small for her years, and will likely go the same, as the patient. It may be mentioned here, in passing too, that the patient's mother during the time I was treating him, developed a goitre, which I noticed increased in size as her full period of pregnancy approached. Frank is unmarried, and has a father and mother both alive and well with whom he lives. There have been no deaths at all in the family, and there are six girls and three

boys besides the patient, all living at home. Out of the whole family there is only one boy and one girl, the proper height. At the time of examination, the temperature of the patient was quite normal, although he always complains of cold, and takes up his position in the armchair by the fire. He looks old and yet childish, and is of a quiet disposition, never getting outrageous, but when provoked, he becomes stubborn and won't speak to any one. His height is thirty nine inches, and weight sixty pounds. The skin in both feet lies in folds, as if there was too much of it. There is no swelling, or oedema of legs, ankles, or feet. Supraclavicular swellings are found on both sides - not very pronounced but distinct nevertheless, which his mother says disappear and reappear. The circumferential measurement of the abdomen during

inspiration is twenty nine inches. The skin is normally smooth all over, and it has never been possible to get him to perspire. Hair is abundant enough on the head, and there is no history of falling out. The thyroid gland is not enlarged but if anything atrophied. The patient's body seems too heavy for his legs, which are also stiff. There is a swelling of the soft parts at the back of the neck. He is without pain, never had paralysis of any nature, and cutaneous sensibility is quite normal. When spoken to he takes rather long to answer, but if he gets time he expresses himself clearly enough and without any incoherence. The pulse is almost imperceptible. In studying this case it will be seen that the patient's condition resembles both Cretinism and Myxoedema. We shall now arrange the

symptoms which he possesses, in tabular form under the heading of those which are typical of Cretinism and those of Myxoedema respectively.

## Cretinism.

## Myxoedema.

Patient is a dwarf.  
 Backward intellect.  
 Large head with large interval between the eyes.  
 Thick lips.  
 Prominent abdomen.  
 Temperature normal.  
 Quick pulse.  
 Nose sunk at the bridge broad at the root and upturned.  
 No swelling of lower extremities.

Oedema round the eyes with no pittings on pressure.  
 Hair not falling out.  
 No goitre.  
 Feeling cold.  
 Cannot perspire.  
 Stout.  
 Increased weight.  
 Feeble gait.



When we consider the above and recognise the combination of symptoms which are peculiar to the two diseases respectively, we must come to the conclusion that there are cases which seem to come equally under the name of Cretinism and Myxo-oedema, or perhaps rather should not come under either of the names, but might be called by the name Myxoedematous Cretinism. Whatever the disease in the patient in question is to be called it must have relation in some way or other to the thyroid gland, if for no other reason than that thyroid extract made a profound reaction, as will be seen further on.

On 4<sup>th</sup> Feb. '95 I photographed the patient for the first time

On 8<sup>th</sup> Feb. I found the temperature normal

and pulse imperceptible. To-day he was supplied with thyroid tabellae of Allen and Hanbury, each containing five grains of the extract, and was ordered to take one every morning. He took the first one on the morning of the 9<sup>th</sup> Feb. At 9 P.M. on the 10<sup>th</sup> he had vomiting and headache. He couldn't lift his head at all; he was so sick, but notwithstanding this he took the tabloids as directed. The headache continued till the 13<sup>th</sup> Feb.

14<sup>th</sup> Feb. Patient complained of pain in his lower limbs - a thing which his mother says she never heard him complain of before. To-day too, one week after treatment had begun, and seven tabloids only had been taken, the patient's mother told me when I called that she thought Frank's face was thinner now. I had not told her that I

wanted or expected any such result. I was rather surprised to hear it but would not believe it just yet.

14<sup>th</sup> and 15<sup>th</sup> Feb. Patient was crying with the pains in his legs. He kept rubbing his knees in particular as they troubled him most.

To day I was told that a friend seeing Frank had asked if he were ill, (not knowing that he was under treatment,) for his face was thinner, he said. The pulse is still imperceptible. He eats better than before. The pains in his knees kept him from sleeping at night. They lasted till the 17<sup>th</sup> Feb. - about eight days.

22<sup>nd</sup> and 23<sup>rd</sup> Feb. He complained of pain in his back so much, that he couldn't bear his braces on, for they hurt him so. This pain lasted about three days.

20<sup>th</sup> Feb. Patient was weighed, and found to be fifty eight pounds - two pounds less than.

before treatment began. The pulse is still imperceptible. He has now had eleven tabloids.

24<sup>th</sup> Feb. He began two a day - one night and morning.

25<sup>th</sup> Feb. I visited the patient and was told that another friend was asking if he were ill, for he was so thin. His father says that, he knows by the way his clothes fit him that he is losing flesh.

2<sup>nd</sup> March. Patient's weight was fifty four pounds. He is now six pounds less than before treatment, and four pounds less than he was twelve days ago. The pain in the back is continuing pretty much the same.

8<sup>th</sup> March. He weighed fifty two pounds. The neck is thinner especially at the nape. The pad which was here has disappeared, and also much of the swelling below the chin. He is now

really very different from what he was on the 6<sup>th</sup> Feb. The abdomen is not prominent now, and his face is quite thin. He can button his jacket which was far too tight for him before. When he needs to go upstairs, he is much more nimble at doing so. Before treatment began he used to ascend the stairs on all fours. Then after treatment had been gone on with, he managed to go up on his feet, but putting two feet on each step. Now he can go up with one foot on each step. Altogether the patient's condition is much more cheerful and intelligent.

11<sup>th</sup> March: Frank was weighed again. He is now fifty and a half pounds. He was photographed to-day for the second time. Yesterday he started three tabloids per day, and at night he was very sick, but there was no pain in his joints or his back. To-day he only took one, and the next three days he had only two daily, he was so

poorly.

18<sup>th</sup> March: The weight now is  $4\frac{1}{2}$  pounds, and he would hardly be recognised as the same person. His weight in six weeks has been reduced twelve pounds. The circumferential abdominal measurement during a deep inspiration is  $22\frac{1}{2}$  inches. In six weeks it has been reduced  $6\frac{1}{2}$  inches.

20<sup>th</sup> March: The patient and his sister (who is in much the same condition as he, and who is seventeen years old) each got a powder containing six grains of Pulv. Ipecac. co. with the same of Antifebrin to see if it would bring about diaphoresis. It caused Frank to perspire but not his sister. The sister had not undergone any treatment at that time. The patient's mother tells me to-night that he is more mischievous and inclined to be a bit wicked with his tongue now to his neighbours. To-night I measured him

standing in his boots, and stockings and he was  $41\frac{1}{2}$  inches. On 6<sup>th</sup> Feb. when he was measured he was 39 inches but there was some uncertainty as to whether patient had his boots on or off, so we may add one inch to his initial height, making him 40 inches. Now this leaves  $1\frac{1}{2}$  inches of an increase in six weeks, which is very considerable.

11<sup>th</sup> April: I visited my patient and weighed him. He is 48 pounds so that although he has been taking three tabloids per day, he is not losing any more flesh. All superfluous tissue seems to be removed. He eats better than his brother who works underground, his appetite being almost voracious. There is no appearance of evil effects at all, and no pains are complained of. His pulse is perceptible and can be easily counted on both wrists, which was not the case at the start of treatment. The abdominal

measurement for some reason or other is 25 inches. It might of course be due to flatulent distension of the bowel or a full meal.

15 April: The pulse is 120 per minute, and the weight 45 pounds. I now ordered only two tabloids per day, as I was afraid the treatment might be causing the too rapid action of the heart; but he can walk out two miles and back and does not complain of being tired. He eats very heartily indeed.

2<sup>nd</sup> May: Frank called on me himself to night after walking two miles. He still takes two tabloids per day. The pulse is weak and numbers 152 per minute. This might be due to excitement and the exertion of walking. His respirations were 32 per minute. The heart sounds are strong and regular. Weight is still 45 pounds, and height  $41\frac{3}{8}$  inches. The abdominal measurement is  $24\frac{1}{2}$  inches during a deep



inspiration

1<sup>st</sup> June:- The patient still takes two tabloids a day. His weight is 48 pounds, and his height 42 inches exactly. The pulse numbers 96 per minute, and can quite easily be counted now, and he can run about.

3<sup>th</sup> June:- He took no thyroid extract for the last three days, but is taking the tabloids again now.

10<sup>th</sup> June:- Started three tabloids per day.

This is the last time I saw my patient as I had to leave the district.

Now let us look over the case, and see in what respects treatment benefited it.

The patient got 142 tabloids altogether, or about 700 grains of the extract, and these were administered during a period of rather more than four months. After a period of six weeks, and when about seventy had been

given. his circumferential abdominal measurement was  $22\frac{1}{2}$  inches. It was 29 inches before treatment, and has lost about seven inches in that time. He has been able to perspire after a diaphoretic powder, and his height at the end of treatment was 42 inches. It was 40 inches before treatment. This makes two inches gained in height in four months.

It may be remembered here that from his age of nineteen years his growing period was nearly finished. The weight of the patient was reduced two pounds per week for six weeks, till he was of normal weight for his size. Then he kept at that standard and lost no more, even when more tabellae were given. At this time his appetite was greatly increased. Further treatment failed to emaciate him shewing I think that it was only the mucine in the subcutaneous tissues which was removed and

not, the muscular or even the adipose tissue. But it must be remembered that after the abdomen was reduced to  $22\frac{1}{2}$  inches, and weight 45 pounds, these respectively increased then to  $24\frac{1}{2}$  inches and 48 pounds. This I believe was due to adipose or other normal tissue and not to mucine, for his appetite was so much increased and his other symptoms continued to improve so much that most likely flesh would be increased in his system. He has been made much more nimble on his feet, and takes more delight in life, joining in games with his friends. Before I began to treat him he hardly did anything but sit in the arm chair by the kitchen fire keeping himself warm. The submental swelling has been completely removed after five weeks treatment. Lastly, but of importance too is the fact, that his personal appearance which can be seen from the photographs

has been strikingly changed for the better.  
The following photographs were taken  
during treatment. They will show some  
things better than a description.

Francis James  
Aged 19 years.

19

I



II



Photographed 4<sup>th</sup> Feb. '95 before treatment.

I Shows large head and  
flabby features with  
submental swelling.  
Jacket cannot meet  
Height 39 inches

II. Shows tumid abdomen  
and head fixed backwards  
on the spine as if  
it were stiff.  
Abdominal measurement  
29 inches.

Francis James.  
Aged 19 years.

20

III



IV



Photographed 11/3/95 after five weeks treatment  
and when about 60 tabloids had been taken.

III. The features are well  
outlined. The mouth is  
not so loose. He can  
put two buttons in his  
jacket. Submental swelling  
completely gone.  
Weight 45 pounds

IV. Abdominal swelling  
has disappeared, the  
circumference being  
22½ inches over the um-  
bilicus. The neck is  
better outlined.